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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,092	02/17/2004	Heinz-Hermann Wippersteg	2859	6333

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EXAMINER	
LO, SUZANNE	
ART UNIT	PAPER NUMBER
2128	
MAIL DATE	DELIVERY MODE
07/20/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,092	WIPPERSTEG ET AL.	
	Examiner	Art Unit	
	SUZANNE LO	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,5,6,8-14 and 18-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,5,6,8-14 and 18-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 January 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/28/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 2, 5-6, 8-14, 18-24 have been presented for examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 04/28/10 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 2 5-6, 8-14, and 18-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Weigelt et al. (U.S. Patent No. 5,712,782) in view of Ma et al. (U.S. Patent No. 6,553,300 B2) in further view of Holowko (U.S. Patent No. 6,192,283 B1)**.

As per claim 24, Weigelt is directed to a method of optimization of adjustable parameters of at least one machine using a diagnosis data processing system **(column 6, lines 13-24)**, comprising the following steps: processing the machine-internal data and machine-external data by the data processing system in consideration of the target data **(column 7, lines 1-39)**; generating further-processible output data **(column 7, lines 1-39)** obtaining optimized adjustable parameters **(column 7, lines 30-34)**; and using the optimized adjustable parameters for indication to an operator or for adjustment of the at least one machine **(column 7, lines 34-39)** but fails to explicitly disclose selecting a process algorithm by comparing the detected instant situation pattern to situation patterns to identify a situation pattern most closely corresponding to the instant situation pattern and the process algorithm corresponding thereto and executing the identified process algorithm to optimize the machine adjustable parameters for the detected instant situation pattern.

Ma teaches defining situation patterns for the process algorithms by at least a part of data selected from the group consisting of machine-internal data, machine-external data, target data and combinations thereof **(column 5, lines 29-58, set of settings to remember, new situations)**, selecting a situation pattern which comes close or is identical to an instantaneous situation pattern and a process algorithm linked to the situation pattern, depending on the at least one part of the machine-interior data and machine-exterior data with consideration of the target data which defines at least a part of an instantaneous situation pattern **(column 5, lines 29-58, input to the system, information from on-board sensors and microcontrollers, column 6, lines 1-9,**

target ranges) and executing the identified process algorithm to optimize the machine adjustable parameters for the detected instant situation pattern. **(column 6, lines 6-11)**. It would have been obvious to an ordinary person skilled in the art at the time of the invention to combine the method of optimization of adjustable parameters of at least one machine of Weigelt with the selection of process algorithms method steps of Ma in order to eliminate the need for constant operator monitoring and regular adjustment and reduces operator fatigue **(Ma, column 2, lines 49-53)**.

However, the combination of Weigelt and Ma fails to explicitly disclose defining a plurality of specified situation patterns according to data selected from a group consisting of machine and target data and combinations thereof; defining a plurality of process algorithms that modify current parameter settings to optimized parameter settings, each of which corresponding to one of the plurality of specific situation patterns; detecting an instant situation pattern according to sampled data selected from the group consisting of machine and target data; selecting a process algorithm from the plurality of stored process algorithms by comparing the detected instant situation pattern to the stored situation patterns to identify both a stored situation pattern most closely corresponding to the instant situation pattern and the process algorithm corresponding thereto.

Holowko teaches defining a plurality of specified situation patterns according to data selected from a group consisting of machine and target data and combinations thereof **(column 11, lines 19-21)**; defining a plurality of process algorithms that modify current parameter settings to optimized parameter settings, each of which corresponding to one of the plurality of specific situation patterns **(column 11, lines 25-32)**; detecting an instant situation pattern according to sampled data selected from the group consisting of machine and target data **(column 11, lines 10-14)**; selecting a process algorithm from

the plurality of stored process algorithms by comparing the detected instant situation pattern to the stored situation patterns to identify both a stored situation pattern most closely corresponding to the instant situation pattern and the process algorithm corresponding thereto **(column 11, lines 15-43)**. Weigelt, Ma and Holowko are analogous art because they are all from the same field of endeavor, optimization of adjustable parameters. It would have been obvious to an ordinary person skilled in the art at the time of the invention to combine the method of optimization of adjustable parameters of at least one machine of Weigelt and Ma with the definited situation patterns and process algorithms of Holowko in order to provide a more simple and efficient method of optimizing parameters **(Holowko, column 2, lines 48-52)**.

As per claim 2, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising determining the optimization of the adjustable parameter by target data selected from the group consisting of editable target data, and storable target data **(Weigelt, column 7, lines 1-39)**.

As per claim 5, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of editing and storing the machine-internal data, the machine-external data and the output data by the diagnosis data processing system **(Weigelt, column 7, lines 1-39)**.

As per claim 6, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of operating the diagnosis data processing system in a time controlled manner **(Weigelt, column 5, lines 24-33)**.

As per claim 8, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of using a traveling speed, a rotary speed of at least one threshing drum and/or the rotary speed of a blower of at

least one cleaning device as the adjustable parameters to be optimized **(Weigelt, column 5, lines 24-33)**.

As per claim 9, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of using a crop-specific and/or machine-specific parameter as the further parameter; and performing the determination of the further parameter by sensors which are in operative communication with the machine or by inputting **(Weigelt, column 5, lines 48-59)**.

As per claim 10, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 9; further comprising the step of using a parameter selected from the group consisting of a grain loss, a grain throughput, a crop moisture, a crop total throughput and a broken corn portion as the further parameter **(Weigelt, column 7, lines 40-55)**.

As per claim 11, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 9; further comprising the step of using adjustment regions for parameters of working units of the machine as the further parameter **(Weigelt, column 6, lines 13-24)**.

As per claim 12, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 5; further comprising the step of generating the machine-external data by external systems and using plant-specific data, geographic data, weather data and/or external expert knowledge as the machine-external data **(Weigelt, column 2, lines 40-55)**.

As per claim 13, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 12; further comprising the step of using crop and/or data and experience knowledge as the external expert knowledge and as internal expert knowledge **(Weigelt, column 7, lines 30-39)**.

As per claim 14, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of processing a diagnosis selected from the group consisting of process diagnosis, case diagnosis, and model-oriented diagnosis, with the chosen process algorithm of the diagnosis data processing system **(Weigelt, column 8, line 60 – column 9, line 7)**.

As per claim 18, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of generating changed process algorithms generation by the data processing system depending on machine-interior data and machine-exterior data and with consideration of changeable target data **(Ma, column 5, lines 34-61)**.

As per claim 19, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of generating changed specific situation patterns by the data processing system in dependence on machine-interior data and machine-exterior data and with consideration of changeable target data **(Ma, column 5, lines 29-58)**.

As per claim 20, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of storing process algorithms, specific situation patterns or both in data sets, wherein the data sets include at least a part of machine-internal data, machine-external data and target data **(Ma, column 5, lines 29-58 and Holowko, column 11, lines 15-43)**.

As per claim 21, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of incorporating in diagnosis data processing system specific situation patterns and associated process algorithms and/or optimized adjustable parameters to be available for further machines **(Ma, column 5, lines 29-58 and Holowko, column 11, lines 15-43)**.

As per claim 22, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24, wherein the machine is an agricultural harvester; further comprising defining at least one process algorithm depending on harvesting conditions of the agricultural harvester **(Weigelt, column 5, lines 40-59)**.

As per claim 23, the combination of Weigelt, Ma, and Holowko already discloses a method as defined in claim 24; further comprising the step of adapting the processing algorithm by analysis and evaluation **(Weigelt, column 8, lines 15-19)**.

Response to Arguments

4. Applicant's arguments filed 04/28/10 have been fully considered but they are not persuasive.

5. In response to applicant's arguments against the references individually on page 9 of Remarks, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). While Ma does not explicitly disclose using *predefined* algorithms, Holowko teaches using predefined algorithms **column 11, lines 27-32**. Furthermore, as cited above in the rejection, Ma teaches selecting a situation pattern that comes close or is identical to an instantaneous situation pattern and selects a process algorithm linked to the situation pattern, depending on the at least one of the machine-interior data and the machine-exterior data with consideration of the target data which defines at least part of an instantaneous situation pattern **(column 5, lines 29-58, input to the system, information from on-board sensors and microcontrollers, column 6, lines 1-9, target ranges)**.

Applicant's arguments on pages 9-10 do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Applicant's arguments merely allege that a skilled artisan would not have thought to modify Weigelt with the teachings of Ma because Weigelt is not configured to accommodate either Ma's structure or functioning but have not provided any evidence in support of said allegation.

In response to Applicant's argument that statuses taught by Holowko is not equivalent to defining a plurality of situation patterns as claimed, the Applicant is further directed to column 9, lines 15-19 which notes that status Sc can comprise a range of values and can be indicative of a number of conditions.

In response to Applicant's argument on pages 11-12 that a prior output PO and results in any manner known of Holowko is not equivalent [to] (sic) defining a plurality of process algorithms as claimed, the Applicant is directed to **column 11, lines 27-32** where in the output O_A is part of an adjustment function so that an appropriate output O_A is sent to the heater **(column 9, lines 20-24)**. Different output O_As are different process algorithms, albeit very simple algorithms (adjust heater setting in response to output O_A).

In response to applicant's arguments against the references individually on page 12 of Remarks, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Holowko teaches detecting an instant situation pattern which may originate from any number of sources **(column 9, lines 15-19)** and Ma

teaches situations patterns defined from machine-internal data, machine-external data, target data, and combinations thereof **(column 5, lines 29-58)**.

In response to Applicant's argument on page 12 that Holowko does not teach selecting a process algorithm from a plurality of stored process algorithms by comparing, the Applicant is directed to column 11, lines 15-32 which is directed to comparison of comparison and selection and matches of prior output PO and results R. The method steps of Holowko in **column 11, lines 39-49** (inaccurately cited as column 11, lines 33-43) are an *alternative* default step in the situation that matches cannot be made. While the alternative steps described in **column 11, lines 39-49** do not teach a selection step by comparing, their failure to do so does not negate the teachings of Holowko in **column 11, lines 33-43** which do teach the selection step by comparing.

In view of the above, the Examiner has not found any subject matter in the claims or specification that can overcome the combination of prior art teachings.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. The prior art made of record is not relied upon because it is cumulative to the applied rejection. These references include:

1. U.S. Patent No. 6,622,070 B1 issued to Wacker et al. on 09/16/03.

2. U.S. Patent No. 6,937,939 B1 issued to Shibusawa et al. on 08/30/05.

3. U.S. Patent No. 4,337,611 issued to Mailander et al. on 07/06/82.

4. U.S. Patent No. 5,220,876 issued to Monson et al on 06/22/93.

5. U.S. Patent No. 5,153,807 issued to Saito et al. on 10/06/92.

6. U.S. Patent No. 5,465,204 issued to Sekine et al. on 11/07/95.

7. U.S. Patent No. 6,609,036 B1 issued to Bickford on 08/19/03.

8. U.S. Patent No. 6,726,559 B2 issued to Bischoff on 04/27/04.

7. All Claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzanne Lo whose telephone number is (571)272-5876. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2297. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SL/
07/14/10

/Hugh Jones/

Primary Examiner, Art Unit 2128